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Business model innovation and export performance

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Abstract
Although business model innovation (BMI) is generally beneficial for firms, few studies have investigated whether and under what conditions BMI benefits materialize in foreign markets. This research applies two complementary theoretical perspectives to understand the role of BMI in helping firms achieve enhanced performance in export markets. We argue that the effectiveness of the two types of BMI (novelty- and efficiency-centered) is influenced by factors such as relational embeddedness, international experience, and competitive intensity. Using primary data from 263 managers and CEOs from 194 exporting firms, we find that novelty- and efficiency-centered BMI boosts performance by strengthening exporters' differentiation and cost advantages, respectively. We also show that for firms operating in mildly competitive environments and in a narrow set of countries, novelty-centered BMI is more likely to lead to a differentiation advantage. At the same time, exporters can attain greater cost advantages from efficiency-centered BMI if they have established strong relationships with their export customers/buyers and have been internationally active for a long time. Managers might need to pay close attention to the level of competition, as it can have both positive and negative implications for advantage-driven export performance outcomes.
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INTRODUCTION

Business model innovation (BMI) refers to a boundary-spanning system of interdependent activities that delineates how firms connect and transact with their environment to exploit business opportunities and create value (Zott & Amit, 2007). Innovating a business model by either developing new ways of transacting with business partners (i.e., novelty-cantered BMI) or improving transactional efficiency (i.e., efficiency-centered BMI) is undeniably important for firms, even surpassing the benefits of new product/service development (Guo, Wang, Su, & Wang, 2020). After all, *how* firms do business is more important than *what* they do (Economist Intelligence Unit, 2005). Research on international business (IB)

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also highlights the importance of BMI, as a form of non-location-bound firm-specific advantages, in realizing competitive advantages in foreign markets (Bohnsack, Ciulli, & Kolk, 2021; Hennart, Majocchi, & Hagen, 2021).

Despite the accumulation of knowledge on the topic, literature on the BMI-performance association is subject to three important limitations. First, research postulates several reasons BMI may be linked to firm performance, including innovativeness enhancement, transaction efficiency, and value proposition (Pati, Ghobadian, Nandakumar, Hitt, & O'Regan, 2021; Zott & Amit, 2007). However, only a few empirical studies (see Web Appendix 1) explicitly focus on these mechanisms, (for a detailed review see Foss & Saebi, 2017), resulting in limited theoretical understanding of the underlying processes – "why mechanisms" – through which BMI influences firm performance. Examining these mechanisms can provide theoretical insights into where and how each BMI type generates value, thereby delineating distinct processes through which novelty- and efficiency-centered BMI drive firm performance.

Second, although empirical studies recognize the importance of BMI for value creation, they diverge on the strategic implications of each BMI type. For example, some contributions (e.g., Zott & Amit, 2007) highlight only the importance of novelty-centered BMI, while others (e.g., Liu, Liu, & Gu, 2021) advocate the importance of both types. Such discrepancies might be due not only to the existence of "why mechanisms" but also to boundary conditions that allow firms to realize the full benefits of their BMI types or prevent them from doing so (Foss & Saebi, 2017). Yet research has taken a narrow view of conditioning effects (e.g., Pati et al., 2021), focusing mostly on environmental factors and thereby limiting theoretical development and practical advancement of research on BMI. Identifying firm-level boundary conditions is of managerial importance because it allows for a more accurate assessment of when each BMI type is more likely to be valuable.

Third, although positional advantages provide a potential baseline for achieving superior performance in export markets, the automatic transformation of such advantages into desired outcomes is not a foregone conclusion (Kaleka & Morgan, 2017). International studies on firm performance have focused on how firms create positional advantages (e.g., Leonidou, Palihawadana, Aykol, & Christodoulides, 2022; Zhang, Wang, Li, & Cui, 2017), but surprisingly little is known about the conditions under which firms can best realize the potential value of such advantages, especially in exporting contexts. Further examination of the conditioning factors influencing the positional advantage–export performance relationship is managerially and theoretically relevant because it enables more accurate extrapolation of positional advantage outcomes.

In addressing these issues, we use two complementary theoretical perspectives to theorize BMI within the IB and exporting domains. Specifically, in line with the resource-based view (RBV), we conceptualize a business model – and BMI as its extension – as a form of non-location-bound firm-specific advantage (Bohnsack et al., 2021; Hennart et al., 2021) that denotes firm configuration of "resources in use" (Demil, Lecocq, Ricart, & Zott, 2015). As such, BMI gives a competitive edge to firms by facilitating deployment and mobilization of resources and exploitation of opportunities (Guo, Wang, Su, & Wang, 2020). Consistent with the sources–positions–performance framework offered by Day and Wensley (1988), such resources allow the capture of internal processes (i.e., positional advantages), turning these into superior firm performance. The framework also emphasizes the importance of learning – as a "distinctive capability" – in enabling a firm to effectively use and transform available resources into desirable outcomes (Day, 1994). We thus draw from the organizational learning perspective (Argote & Miron-Spektor, 2011) to identify necessary organizational learning capabilities influencing an exporter's ability to capitalize on its BMI. The RBV and the sources–positions–performance framework highlight the role of competitive intensity as the main external factor in determining the extent to which firms can benefit from their resources and positional advantages.

This research offers three insights for the exporting and BMI literatures. First, using the RBV and the sources–positions–performance framework, as its extension, our study provides a comprehensive picture of how novelty- and efficiency-centered BMI drive export performance. In doing so, our study highlights the need for explicating internal processes through which novelty- and efficiency-centered BMI enhance export performance. Our results indicate that both BMI types boost export performance, albeit indirectly and through distinct paths, thereby encouraging practitioners to take a complementary (vs. substitutive) approach to the

two types (e.g., Leppänen, George, & Alexy, 2023). This finding is theoretically important because it confirms the relevance of BMI for enhancing internationalization success (Bohnsack et al., 2021; Hennart et al., 2021). Our findings also call for re-evaluation of the potential value of efficiency-centered BMI, which has been neglected in the literature.

Second, adopting the RBV and organizational learning theory, we explore whether the relationship between novelty- and efficiency-centered BMI and positional advantage varies under different levels of exporters' learning capabilities and competitive intensity. We thus respond to Foss and Saebi's (2017) call for further investigation into boundary conditions influencing the effectiveness of novelty- and efficiency-centered BMI. Theoretically, our study connects BMI with the RBV and organizational learning, thereby linking different but interrelated research streams. Our findings provide further evidence of complementarity among resources (i.e., business model), capabilities (i.e., organizational learning), and competitive intensity in explaining the BMI–positional advantages link and illustrate the interconnectedness of theoretical perspectives used in this study. They also offer managerial insights into the conditions under which capitalizing on novelty- or efficiency-centered BMI is most effective in generating desirable market outcomes.

Third, our study builds on and complements Day and Wensley's (1988) work, as well as other contributions based on the sources–positions–performance framework, by examining the role of competitive intensity in helping firms transform potential value of cost and differentiation advantages into actual value (i.e., export performance) or preventing them from doing so. Our findings regarding heterogeneous moderating effects of competitive intensity highlight the need to reconsider widely accepted unconditional performance effects of positional advantage.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Much of the theorizing on the business model pertains to how BMI dimensions directly influence firm performance (see Web Appendix 1). Our study diverges from this focus by applying Day and Wensley's (1988) framework to unpack the BMI–performance relationship. Accordingly, resources together with capabilities result in positional advantages by enabling firms to outperform competitors (Day & Wensley, 1988). Firms with positional advantages are in a better position to achieve superior outcomes. Figure 1 illustrates our conceptual model.

We adopt the RBV as the overarching theoretical lens of the conceptual framework, which considers idiosyncratic and unique resources as the basis for performance differences (Day, 1994). The RBV links the business model to the acquisition and configuration of unique resources outside firm boundaries (Foss & Saebi, 2017). We thus view BMI as a form of non-location-bound firm-specific advantages (Hennart et al., 2021) that provide a baseline for what Day and Wensley (1988) call "positional advantages". In particular, we focus on how two types of BMI (i.e., novelty- and efficiency-centered BMI) increase exporters' performance by strengthening their positional advantages (i.e., differentiation and cost).

Studies drawing on the RBV also suggest that resources should be coupled with capabilities – that is "complex bundles of skills and collective learning" embedded in organizational processes and routines (Day, 1994: 38) – for the successful deployment and transformation of available resources into desired market outcomes. Day (1994) particularly stresses the key role of learning as a "distinctive capability" in helping firms more effectively leverage available resources. Recent streams of research highlight the essence of learning capabilities necessary for successful BMI (e.g., Foss & Saebi, 2017). Implementing new business models is an increasingly demanding task; it requires changes in internal and external processes and extensive trial and error. Learning capabilities become even more important for exporters, given their liability of foreignness and the subsequent risk of poor decision-making in implementing and benefiting from their BMIs. Building on this strand of research and using the organizational learning perspective (Argote & Miron-Spektor, 2011), we suggest that exporters with higher learning capabilities are in a better position to overcome their liability of foreignness and, thus, to turn opportunities provided by BMI into positional advantages. A basic tenet of the organizational learning perspective is that firms' ability to learn is a function of context and experience (Argote & Miron-Spektor, 2011). We identify relational embeddedness and international experience as the contextual and experience functions, respectively, of organizational learning. Managerial insights from our field

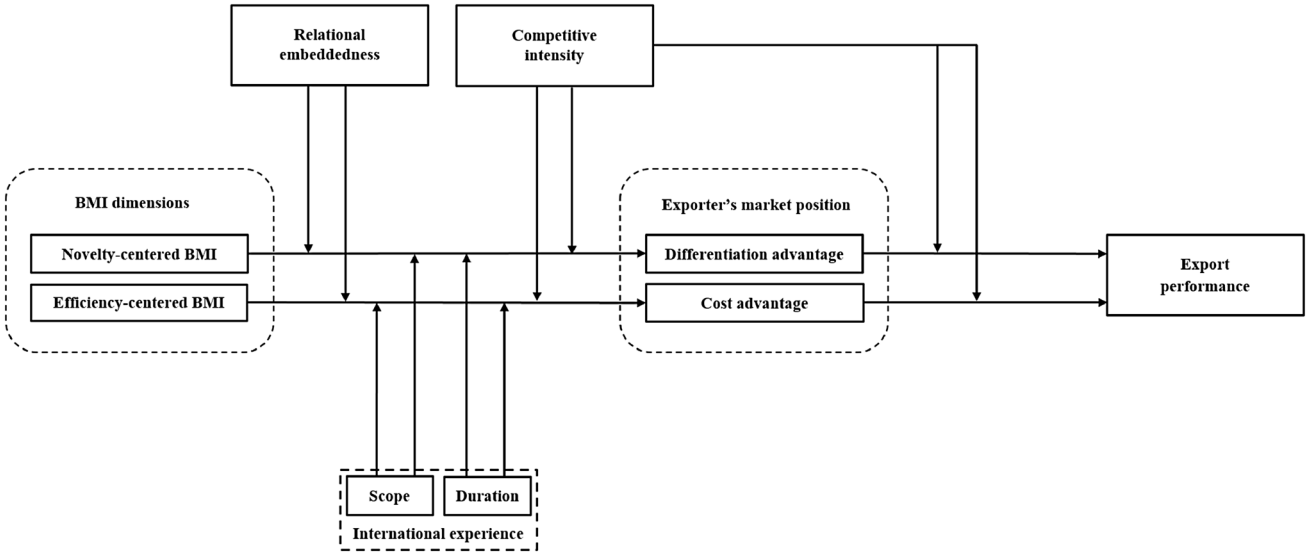

Figure 1 Conceptual model.

interviews also support this selection (see Web Appendix 2).

We define "relational embeddedness" as the strength of the relationship between an exporter and its business partners in an export market (Dhanaraj, Lyles, Steensma, & Tihanyi, 2004). Relational embeddedness allows firms to better understand the specificities of export markets (Johanson & Vahlne, 2009) and to perform local operations more efficiently (Spyropoulou, Katsikeas, Skarmeas, & Morgan, 2018). Such firms can also better identify and realize opportunities created through available resources (Johanson & Vahlne, 2009). The IB literature (e.g., Morgan, Kaleka, & Katsikeas, 2004) associates firm experience mostly with international experience – reflecting firms' level of experiential and procedural know-how (Johanson & Vahlne, 2009). International experience is a key knowledge resource that determines the efficiency and effectiveness of activities (i.e., BMI) in export markets (e.g., Morgan et al., 2004). We focus on two dimensions of international experience: scope, or the number of countries to which a firm has been exporting, and duration, or the number of years a firm has been exporting. We specify scope as the breadth (uniqueness and diversity of firms' knowledge repository) of exporter knowledge of various foreign markets and duration as the depth (complexity and sophistication) of exporter knowledge in foreign markets.

Finally, positional advantage captures how customers perceive offerings of a firm versus those of competitors (Day & Wensley, 1988). Consequently, while novelty- and efficiency-centered BMI may generate differentiation/cost advantages or represent significant potential for enhanced export performance, the realization of such potentials may depend on the intensity of competition in an export market (Kaleka & Morgan, 2017). Competitive intensity, one of the main sources of environmental uncertainty and turbulence, refers to the extent to which a firm faces competition in a market (Jaworski & Kohli, 1993). The RBV and sources–positions–performance framework emphasize competitive intensity as the key characteristic of external environments determining the benefits of resources and positional advantages. For example, the sources–positions–performance framework suggests that the intensity of competition determines the "size" and "durability" of benefits (e.g., performance) derived from a resource or positional advantage (Day & Wensley, 1988). In line with the RBV, competitors' ability and willingness to use substitute capabilities to deliver the same value offerings lead to the possibility of a positional advantage being "competed away" (Morgan et al., 2004). We thus expect that competitive intensity conditions exporters' ability to benefit from the two types of BMI and/or transform positional advantages into desired performance outcomes.

BMI

We follow Zott and Amit (2007), who identify novelty and efficiency as the two fundamental types of BMI. Any BMI developed by an exporter can be both novelty- and efficiency-centered, given

that these design types are not mutually exclusive (Zott & Amit, 2007). Being novelty-centered usually involves generating value by developing a business model that is new not only to the firm but also to the industry (Amit & Zott, 2015). Exporters can achieve novelty-centered BMI in different ways, such as by bringing in new partners; offering new combinations of products, services, and information; or adapting novel ways of transacting economically with local customers and institutions (Zott & Amit, 2007). The "Own & Operate" business model of ALD Vacuum Technologies, the world's leading supplier of vacuum process technology, is one example of novelty-centered BMI. Through this business model, ALD not only sells vacuum process solutions through its own plant but also participates in customers' product development by offering the technology and know-how they lack (e.g., process technologies, modular processes). This business model has enabled ALD to offer a new combination of products (i.e., state-of-the-art vacuum equipment), services (e.g., addressing customers' needs for heat treatment), and information (i.e., technology and process know-how) that ultimately resulted in its differentiation advantage (Zapfl, 2018). Tesco's virtual stores in South Korea is another example of novelty-centered BMI. In addition to its brick-and-mortar stores, Tesco's business model focuses on selling products through virtual stores displayed in public places, such as subways. Korean customers can do their grocery shopping by scanning QR codes of products through their smartphones while waiting for the tube to arrive (Han, 2019). Tesco achieved a novelty-centered business model by developing unique ways of meeting Korean customers' unmet needs.

Efficiency-centered BMI includes all the measures an exporter takes to decrease transaction costs and risk. In doing so, the exporter can exploit the established designs of business models in an industry (cf. Amit & Zott, 2015). Exporters can achieve efficiency in transaction exchanges in different ways, such as by reducing information asymmetries, enhancing simplicity and transparency of transactions or decreasing (e.g., coordination, inventory) costs (cf. Zott & Amit, 2007). A case in point is Dow Corning, the global producer of silicone, whose initial business model provided additional technical or research support alongside products. However, the arrival of competitors and subsequent drops in demand forced the firm to develop a new cost-oriented business model (i.e., Xiameter), which offered competitive prices to customers interested in buying in bulk but not in additional services. The business model, while new to the firm but not to the industry, helped Dow Corning reduce costs through process automation, minimize excess production capacity, and use low-cost online sales channels (Frei & Musso, 2011). Another example of efficiency-centered BMI is Healx, a tech venture focused on treating rare diseases in the context of personalized medicine. Healx's new business model allowed the company to efficiently link rare diseases with treatments by integrating and leveraging clinical databases held by other health-care firms across the globe (Kavadias, Ladas, & Loch, 2016). Such access to a large volume of information and other health-care firms enabled Healx to achieve costs advantages by reducing the search costs and time associated with finding solutions related to rare-disease treatments.

Exporters need to make the strategic decision to design a new or replicate an existing business model in export markets. While such strategic decisions are firm-specific, they affect firms' performance in distinct ways (Zott & Amit, 2007). In particular, novelty-centered BMI is often associated with enhanced and unique value propositions (cf. Pati et al., 2021) that can result in differentiation advantages in an export market. Instead, replicating approaches for developing new business models (i.e., efficiency-centered BMI) is often linked to exploitation and improvement of business models new to a firm but not to an industry (Amit & Zott, 2015). Given the lack of novelty of such business models in an industry, efficiency-centered BMI mainly assists firms in achieving a strategic position of cost-efficiency in the export market (cf. Zott & Amit, 2007). Therefore, BMI types can enhance positional advantages and, thus, the overall export performance in a particular market, but through different pathways – namely, differentiation or cost advantage.

Mediating Effect of Differentiation Advantage

The main basis for novelty-centered BMI is to identify and adopt new ways of engaging in economic exchanges with business partners (Zott & Amit, 2007). We propose that novelty-centered BMI helps exporters realize differentiation advantages in the export market in three ways. First, it assists exporters in achieving differentiation by increasing learning opportunities beyond organizational boundaries that result from their enhanced accessibility to new business partners (cf. Zott &

Amit, 2007). Compared with local competitors, exporters face difficulties from liabilities of foreignness, in which they lack sufficient knowledge about export market conditions (Johanson & Vahlne, 2009); as such, they are at a high risk of not detecting and thus not meeting export market demands. By providing knowledge beyond firm boundaries, new local business partners can help exporters gain a deeper understanding of both explicit and latent requirements of the export market. In particular, identification of untapped market needs provides exporters with novel product, service, and/or distribution ideas that can be transformed into positional advantages in export markets.

Second, novelty-centered BMI enhances differentiation advantages by enabling firms to access and recombine heterogeneous resources within and beyond their boundaries (Zott & Amit, 2007). The RBV literature consistently highlights the importance of accessing various resources and recombining them for value creation and competitive advantages (Day, 1994). Novelty-centered BMI enhances accessibility to heterogeneous knowledge resources existing in export markets by bringing together new business partners. Such access to diverse sources of knowledge ultimately results in more effective problem-solving and creation of breakthrough solutions required for the generation of differentiation advantages in export markets. Novelty-centered BMI also facilitates more efficient recombination of exporters' resources with those of foreign business partners by increasing the richness of inter-firm relations (Zott & Amit, 2007). In line with the RBV, recombining opportunities through channel partners becomes the basis for exporters' value proposition and creation of firm-specific advantages in foreign markets (Day, 1994). Without efficient resource recombination, exporters cannot bundle external resources and turn them into differentiation advantages.

Third, novelty-centered BMI boosts exporters' ability to achieve differentiation advantages in the export market by increasing their ability to innovate (Zott & Amit, 2007). Novelty-centered BMI reinforces exporters' innovation in products and service as well as distribution, marketing, and production-related activities (Zott & Amit, 2007). Consequently, the higher the level of novelty-centered BMI, the greater is exporters' ability to create, capture, and offer superior value that may not be readily available in the export market.

Exporters with differentiation advantage are in a better position to achieve superior performance in foreign markets, as they enjoy greater customer satisfaction, repeat purchases, and new buyers (Spyropoulou et al., 2018). Given their unique value offerings and favorable reputation, such exporters can also be more flexible in setting prices with higher profit margins, which in turn leads to increased financial performance (Leonidou et al., 2022). Consequently, in line with Day and Wensley's (1988) framework, we suggest that novelty-centered BMI boosts export performance indirectly by generating differentiation advantage. Thus:

Hypothesis 1: Differentiation advantage mediates the relationship between novelty-centered BMI and export performance.

Mediating Effect of Cost Advantage

Efficiency-centered BMI assists exporters in achieving cost advantages in two ways. First, it encourages a self-reinforcing cycle of learning and incremental innovation. Business models include complex sets of interdependent activities that are created, refined, and improved by "doing" (Winter & Szulanski, 2001). Consequently, contrary to conventional wisdom, efficiency-centered BMI is not just about copying or applying existing models but also about undertaking considerable efforts to identify, evaluate, learn, refine, and leverage the business models used by other firms (cf. Winter & Szulanski, 2001). In particular, exploration activities, such as searching for dominant templates for BMI in an industry and evaluating the cost variations among them, improve exporters' chances of identifying promising cost-efficient business models suitable for the export market. Yet, given the prevalence of such business models and, as such, the lack of novelty, drawing on these business models would likely result in cost advantages and not differentiation advantages in an export market (Amit & Zott, 2015). Conversely, exploitative activities, such as leveraging and refining elements of an existing business model, help exporters capitalize on valuable features while removing costs by identifying and resolving shortcomings. In summary, identifying, evaluating, leveraging, and fine-tuning promising business models – as key activities involved in efficiency-centered BMI – boost exporters' ability to match local competitors' value propositions at a lower cost.

Second, efficiency-centered BMI augments exporters' cost advantage by decreasing transaction-

related costs. Transactional inefficiencies arise from factors such as information asymmetry and transactional risks (Williamson, 1975) that can ultimately increase overall business exchange costs by disrupting the consistency and coordination of activities between business partners. Efficiency-centered BMI enables exporters to decrease transaction costs in export markets by reducing complexities, uncertainties, and information asymmetries with business partners (cf. Williamson, 1975; Zott & Amit, 2007). In particular, the key focus of efficiency-centered BMI is on increasing information accessibility by facilitating information flow among channel partners and minimizing the control over information that any channel partner may have (Zott & Amit, 2007). Efficiency-centered BMI also helps exporters simplify transactions, reduce inventory, and increase the transparency of transactions (Wei, Yang, Sun, & Gu, 2014; Zott & Amit, 2007). Such improvements ultimately decrease exporters' transaction costs with local business partners, thereby enabling them to achieve cost advantages by creating the same or even additional value with lower costs.

Cost advantages enable exporters to offer lower prices than competitors, which then leads to greater customer value and pricing flexibility (Leonidou et al., 2022). As such, exporters with cost advantage not only retain their current customers but also attract new ones, thereby enjoying higher sales, profit margins, and market share (Kaleka & Morgan, 2017). Following the sources–positions–performance framework, we expect that efficiency-centered BMI boosts export performance indirectly by generating a cost advantage. Thus:

Hypothesis 2: Cost advantage mediates the relationship between efficiency-centered BMI and export performance.

Role of Relational Embeddedness

Relational embeddedness can enhance differentiation and cost advantages of novelty- and efficiency-centered BMI by enhancing learning opportunities and decreasing transaction-related costs. On the one hand, novelty-centered BMI provides new learning opportunities regarding export market conditions by connecting exporters with new business partners (Zott & Amit, 2007). However, such valuable opportunities cannot be fully realized unless exporters overcome the complexities of learning, which are mostly associated with codification, articulation, and integration of context-specific knowledge available in export markets. Relational embeddedness eases such learning complexities by deepening the firm's understanding of export market particularities and cultural characteristics and creating a baseline for more accurately interpreting, processing, and integrating such information and knowledge (Dhanaraj et al., 2004). As such, while novelty-centered BMI provides new learning opportunities, relational embeddedness allows exporters to transform such opportunities into unique offerings that match or exceed export market needs, thereby enhancing differentiation advantages. In the absence of relational embeddedness, exporters face difficulty in leveraging learning opportunities made available through novelty-centered BMI, which in turn decreases its associated benefits.

On the other hand, relational embeddedness conditions the cost-advantage outcomes of efficiency-centered BMI by decreasing transaction-related costs. Such embeddedness enables exporters to identify and cooperate with efficient business partners and replace incompetent ones. A consequence of exporters' liability of foreignness is their insufficient knowledge of the business environment (i.e., knowledge about existing or future channel partners and relationships between firms in the export market) (Johanson & Vahlne, 2009). Embedded relationships help firms overcome such constraints by reducing language and cultural barriers, thus easing access to export market business know-how (Najafi-Tavani, Zaefarian, Henneberg, Naudé, Giroud, & Andersson, 2015; Spyropoulou et al., 2018). Therefore, exporters with a high level of embedded relationships are in a better position to evaluate more accurately the current and future capabilities of their business partners, optimize the process of identifying and choosing new business partners if necessary, and negotiate more favorable contracts. These factors, in turn, increase the positive effects of efficiency-centered BMI on cost advantages by decreasing transaction costs. In the absence of relational embeddedness, an exporter benefits less from its efficiency-centered BMI because it not only incurs increased search costs of finding suitable channel partners but also is more likely to rely on less efficient channel partners with capabilities not sufficient for successful implementation of the newly developed business model. Thus:

Hypothesis 3a and 3b: Relational embeddedness strengthens the positive association between

exporters' novelty- (efficiency-) centered BMI and differentiation (cost) advantages in the export market.

Role of International Experience

International experience, as manifested by scope and duration, can strengthen the positive effects of both novelty- and efficiency-centered BMI on exporters' positional advantage. International experience enhances the effectiveness of novelty-centered BMI by increasing exporters' ability to learn new knowledge and innovate. Experienced international firms not only have deeper understanding of core technologies and existing trends in an export market but also have broader and more diversified experiential knowledge at their disposal to apply to their operations in a particular export market. According to the organizational learning perspective, such experiential knowledge allows flexibility in operations and provides a baseline for detecting and benefiting more from new learning opportunities (Argote & Miron-Spektor, 2011). By recombining experiential knowledge with current understanding of the target export market, firms with international experience can also better identify export market needs and generate new solutions to meet and even exceed those needs (Spyropoulou et al., 2018). However, exporters with less international experience access fewer learning opportunities because they do not possess the required baseline for detecting potentially valuable market knowledge. Such exporters also have a limited repository of innovative ideas and therefore are unable to identify and turn new market opportunities into superior products/services.

International experience can also boost the effectiveness of efficiency-centered BMI by reinforcing the cycle of self-learning and incremental innovation and reducing transactional costs. As exporters gain more experience in various geographic markets, they amass high-quality stock of experiential knowledge across heterogeneous export domains (Johanson & Vahlne, 2009). Such experiential knowledge includes best practices, benchmarks, and lessons that exporters can use to re-evaluate their current operations and identify their shortcomings in an export market, thereby reinforcing the cycle of self-learning and incremental innovation (cf. Zhou & Li, 2012). Moreover, experienced exporters not only possess knowledge of competitive local business partners but also have a deeper understanding of how to efficiently deal with them (Johanson & Vahlne, 2009). Such an understanding decreases their transaction risks and uncertainties by enabling them to identify and rely on trustworthy and competent business partners in the export market. Experienced exporters are also more aware of the issues in the export market and, given their broad exporting knowledge, are more capable of reconfiguring and improving their operations quickly to successfully implement their efficiency-centered business model and product/service offerings. However, in the absence of experiential knowledge, exporters are at risk of relying on inept business partners, which ultimately increases transaction costs and decreases the effectiveness of efficiency-centered BMI. These exporters are also less aware of their inefficiencies and have limited insights into how to resolve such issues, which then lessens the opportunities for further cost-based improvements. Thus:

Hypothesis 4a and 4b: International experience strengthens the positive association between exporters' novelty-(efficiency-) centered BMI and differentiation (cost) advantages in the export market.

Role of Competitive Intensity

Competitive intensity captures the number of competitors and the frequency of employing a particular approach in response to competition in an export market (cf. Jaworski & Kohli, 1993). We suggest that the degree of competition in an export market affects the positive effects of novelty- and efficiency-centered BMI on positional advantage in antithetical ways. On the one hand, competitive intensity may strengthen the effectiveness of BMI by boosting exporters' willingness to become more innovative and engage in self-reinforced cycles of learning. Severe competition generates uncertainties, which exacerbates the challenges of maintaining demand–supply equilibrium (Spyropoulou et al., 2018). Firms thus need to engage in exploratory learning and become more innovative to cope with such uncertainties and effectively respond to competitors (Zahra, 1993). Exporters may also be more willing to engage in self-reinforced cycles of learning to detect and refine their current shortcomings. Such extra motivation to innovate and resolve deficiencies allows exporters to further enhance positional advantage of BMI by optimizing resource allocation, identifying and satisfying untapped market needs, improving product/service quality, and achieving a quicker speed to market (Leonidou et al., 2022). By contrast, in

less competitive markets, exporters are less pressured to develop new ways or rectify their shortcomings, resulting in fewer innovative products/processes and further improvements in their export market operations. In addition, costs and risks associated with BMI might outweigh differentiation benefits accrued.

On the other hand, competitive intensity may weaken BMI-related outcomes by decreasing innovation and learning benefits of novelty-centered BMI and reducing the costs advantages of efficiency-centered BMI. As the level of competition intensifies, exporting firms encounter many challenges, such as increased risk of losing valuable suppliers or buyers to competing firms, lower entry barriers, and increased information transparency (Hansen, McDonald, & Mitchell, 2013). In such circumstances, the knowledge garnered through BMI becomes redundant more quickly, which limits the learning benefits of novelty-centered BMI. Given frequent introduction of innovations by rivals, exporters may also face challenges in capitalizing on their novel business models to gain differentiation advantages, as their innovative approaches stand out less (Leppänen et al., 2023; Rubera & Kirca, 2017). Moreover, fierce competition increases transactional costs – thus, reducing the effectiveness of efficiency-centered BMI – by lessening channel partners' dependency, increasing opportunistic behavior, and forcing firms to invest more resources in monitoring channel partners' behavior. However, when competitive intensity is low, exporters can benefit more from their BMI, given reduced risk of channel partners' opportunistic behavior and access to novel knowledge resources that are not widely available to rivals. Thus:

Hypothesis 5a and 5b: Competitive intensity strengthens or weakens the positive association between exporters' novelty-(efficiency-) centered BMI and differentiation (cost) advantages in the export market.

Previous research has questioned the durability of competitive advantages, arguing that they are contingent on factors such as the intensity of competition (Day & Wensley, 1988). However, competitive intensity can influence the export performance benefits of positional advantage in two ways. First, competitive intensity may boost the performance outcomes of positional advantages by encouraging exporters to continuously innovate and find novel solutions that impair rivals' actions. While exporters with a positional advantage are already one step ahead of rivals, to sustain their position, they have no choice but to remain vigilant and continuously innovate unique products/processes, become more responsive to market demands and competitors' actions, and engage in riskier activities (Morgan et al., 2004; Zahra, 1993). Consequently, the challenges of operating in a competitive environment force exporters to draw more on their innovativeness, resulting in increased customer value, more favorable reputation, and superior offerings. Such reinvigorating effects of competitive intensity enable exporters to turn threats of competition into further opportunities, thereby boosting the positive relationship between positional advantage and export performance. By contrast, under low competition, exporters are less pressured to innovate, which in turn decreases opportunities for value creation and generation of a favorable reputation, thereby reducing the ability to turn their positional advantage into superior export performance.

Second, intense competition may reduce the performance outcomes of positional advantage by making firms' offerings more comparable and interchangeable (Morgan et al., 2004). Moreover, cutthroat price wars, a major characteristic of intensely competitive environments, deflate the price advantage and thus lower the exporter's value offerings, pricing flexibility, and profit margins (Leonidou et al., 2022), which turns positional advantages into less effective drivers of superior export performance. To cope with fierce competition, exporters may replicate competitors' behaviors, particularly those related to pricing, promotion, and new product development (cf. Hansen et al., 2013). Such an approach may limit exporters' ability to benefit from their positional advantages given an overemphasis on exploitative activities. This also leads to imitability and lack of novelty – and, thus, lack of attractiveness – of their offerings in an export market. A lower level of competitive intensity, however, is associated with less uncertainty, lower price competition, greater pricing flexibility, and a more stable environment (Spyropoulou et al., 2018). Exporters operating in such environments can thus benefit more from their positional advantages given fewer similar alternatives for customers and a lower likelihood of their offerings being matched by rivals. Given these two competing perspectives available in the literature, we contend that:

Hypothesis 6a and 6b: Competitive intensity strengthens or weakens the positive association between exporters' positional advantages (i.e., differentiation and cost) and export performance.

METHODS

Sampling and Data Collection

The empirical context of the study is UK-based firms that export products to other overseas markets. The United Kingdom provides an ideal context for our study because it plays a key role in the world's export trade. Using S&P's COMPUSTAT database, we extracted a sample of 1384 active firms with at least 20 employees and more than US$1 million annual export turnover that operate in industrial and financial sectors (e.g., manufacturing, retail, insurance). These sectors actively engage in exporting and account for the majority of UK exports. We focused on high-level executives such as CEOs, senior executives, and managers who hold important positions related to global and export operations (e.g., export manager).

We followed a multiple-informant approach to enhance the quality and validity of responses. We asked each respondent to focus on a specific export market. When we had two responses from a single firm focusing on the same export venture, we used responses for the dependent variables and moderators from the higher-ranked manager (e.g., CEO) and the responses for the independent variables from the lower-ranked respondents (e.g., sales manager); when we had more than two lower-ranked responses, we used their average to create a unique response for each firm. We did this partly as a strategy to control for common method issues and partly to select key informants who are more knowledgeable about and more closely linked to their areas of expertise for the study's core constructs (Homburg, Klarmann, Reimann, & Schilke, 2012). Of the 1384 firms extracted from the database, 454 unique firms were randomly contacted.

After making consecutive contacts that helped identify appropriate key informants, we received 503 questionnaires from 217 unique firms, for a 47.8% response rate. Of the 503 questionnaires, we eliminated 95 that did not meet our eligibility criteria (i.e., firms that indicated they do not engage in exporting activities). We dropped another 64 because of low response quality (less than 5 min to complete the questionnaire), low key-informant competency ratings, or absence of information related to a specific export market. The remaining 344 responses included multiple key informants. Taking into consideration the multiple key informant cases focusing on the same export market, the final sample comprised 263 responses from 194 unique firms for analysis purposes. Web Appendix 4 provides details on the sample and on the quality and competence of key informants.

To assess the likelihood of non-response bias, we compared early and late respondents using the means of our main constructs (Armstrong & Overton, 1977). We observed no statistically significant differences between early and late respondents throughout the sample. As a further check, we randomly selected groups of 20 responding and 20 non-responding firms from our original sample. A comparison of secondary sales and employee data between the two groups revealed no significant differences between them. Therefore, non-response bias does not appear to be an issue in this study.

Measures

We identified measures for each construct from prior research, with multi-item scales preferred for key study constructs (see Web Appendix 5). To check the validity and appropriateness of the measures, we asked five established IB academics and four senior UK-based exporting managers to review the questionnaire, which resulted in improved wording and clarity of the questions and instructions provided. Accordingly, we tested the questionnaire again with 12 key informants not included in the final sample. No particular issues were reported in terms of flow, clarity, and duration.

Control Variables

Recognizing that some variables can play an important role in our model and to avoid omitted variable bias, we included many control variables in our analysis. Because larger firms often have more resources available for their international operations, we used the natural logarithm of the number of employees as a measure of firm size. In addition, because more experienced firms are more likely to have an overseas market presence, we used the natural logarithm of the number of years since the firm was first established to measure firm age. We controlled for resource availability given its importance for strategic goal achievement (Wei et al., 2014). To control for technology and product differentiation strategy (Zott & Amit, 2007), we

collected data on firms' R&D expenditure and used dummies to control for industry (e.g., industrial sector) and firm focus (e.g., business-to-business, business-to-consumer). We also captured information on market and technological turbulence, complementarities, lock-in activities, novelty level, and scope type for our analysis. Finally, we controlled for the impact of the COVID-19 pandemic by asking managers to indicate the extent to which it affected their firms' performance with three response options (i.e., "positively," "negatively," and "no impact").

Common Method Bias

The likelihood of common method bias (CMB) is limited in our study because, in many cases, we collected data from multiple key informants. Moreover, complex effects between the constructs in our conceptual framework (i.e., multiple moderating effects) prevent easy prediction of how the variables might be interrelated, further decreasing the possibility of CMB. We also counterbalanced the order of variables, ensured confidentiality of responses, and reminded respondents that there were no correct or incorrect answers. To further explore whether CMB is an issue in our study, we applied a post hoc statistical remedy based on the marker variable approach (Malhotra, Kim, & Patil, 2006). Specifically, we selected the second-smallest positive correlation between the variables ($r_M = 0.009$) as a marker variable, on the basis of which we assessed the CMB-adjusted correlation between the manifest variables as $r_A = (r_u - r_M)/(1 - r_M)$, where r_A is the CMB-adjusted correlation, r_u is the original correlation, and r_M is the marker variable. The adjustment did not alter the significance level of any correlation coefficient; thus, CMB is not a major concern in this study.

Measure Assessment

We used IBM SPSS AMOS 26 to conduct confirmatory factor analysis using the maximum likelihood estimation (see Web Appendix 5). During this process, we removed items exhibiting low factor loadings and re-estimated the model for purification purposes. The chi-square of the model was significant ($\chi^2_{(796)} = 1589.319$, $p = 0.000$), which we expected given the known deficiencies of this model's fit statistics. Nonetheless, the results of the other fit indices suggest an acceptable model fit to the data ($\chi^2/df = 1.99$, comparative fit index = 0.912, normed fit index = 0.906, root mean square error of approximation = 0.062, standardized root mean square residual = 0.061). Convergent validity was evident, as all standardized factor loadings were above 0.60 and the model solution converged without any problems or conditions. The composite reliability of the variables was satisfactory, exceeding the widely used benchmarks of 0.70. The average variance extracted (AVE) for the constructs exceeded the suggested cutoff point of 0.50. In all cases, the AVE estimates were higher than the relevant squared bivariate correlation, indicating the presence of discriminant validity among the study constructs (see Table 1).

RESULTS

Because our conceptual model comprises three regression equations, each of which has its own dependent variable, we used seemingly unrelated regression (SUR) to analyze the data. The SUR approach helps analyze a set of models that are "seemingly" unrelated while also taking into account the contemporaneous correlation of errors across the different regression equations. This enables the production of more reliable and efficient parameter estimations in a single iterative procedure (Zellner, 1962). We estimated three regression models with cost advantage, differentiation advantage, and export performance as the dependent variables. In each model, we first estimated the main effects of the relevant independent variables and the controls (Model 1) and then added the relevant interaction terms to the full model (Model 2) (see Table 2). To facilitate interpretation, we mean-centered the variables before computing the interaction terms. The results suggest that the full models have considerable explanatory power (differentiation advantage: $R^2 = 0.264$; cost advantage: $R^2 = 0.227$; export performance: $R^2 = 0.460$).

The analysis of the full model pertaining to differentiation advantage suggests that novelty-centered BMI is positively and significantly related to differentiation advantage ($\beta = 0.419$, $p = 0.023$) while efficiency-centered BMI has a direct and significant effect on cost advantage ($\beta = 0.214$, $p = 0.002$). This means that a one-unit increase in novelty-centered BMI (efficiency-centered BMI), while holding all other explanatory variables constant, leads to an increase of 0.419 (0.214) units of an exporter's differentiation (cost) advantage, a meaningful impact given that this mean-centered scale ranges from − 2.46 to 1.87 (− 3.47 to 2.53). To test Hypotheses 1 and 2, considering the

Table 1 Means, standard deviations, AVEs, reliability scores, and correlations

Construct	1	2	3	4	5	6	7	8	9
1. Novelty-centered BMI	–								
2. Efficiency-centered BMI	0.628	–							
3. Differentiation advantage	0.298	0.383	–						
4. Cost advantage	0.253	0.265	0.219	–					
5. Export performance	0.284	0.313	0.529	0.363	–				
6. Relational embeddedness	0.313	0.231	0.175	0.269	0.207	–			
7. International experience$_{Scope}$ [a]	0.036	0.081	0.183	0.001	0.189	− 0.007	–		
8. International experience$_{Duration}$ [a]	− 0.080	− 0.063	0.131	− 0.066	0.131	0.009	0.649	–	
9. Competitive intensity	0.100	0.116	− 0.023	0.018	0.024	0.027	− 0.014	0.036	–
Mean	5.071	5.056	5.129	4.470	4.888	4.842	1.346	1.380	3.989
SD	1.034	1.004	0.899	0.893	0.846	1.187	0.513	0.427	1.211
AVE	0.503	0.505	0.562	0.610	0.668	0.589	–	–	0.535
Composite reliability	0.876	0.890	0.793	0.824	0.909	0.895	–	–	0.821

n = 263. Correlations with absolute values higher than 0.121 are significant at the 0.05 level (two-tailed).
[a] Logarithmic transformation.

mediating effects of differentiation and cost advantages on the links between novelty- and efficiency-centered BMI and export performance, we employed IBM SPSS AMOS 26 using bootstrapping with 5000 samples (see Table 3). The analysis revealed a significant indirect effect of novelty-centered BMI on export performance though differentiation advantage ($M_{Indirect\_differentiation}$= 0.175, p = 0.000, 95% confidence interval [CI] = 0.084, 0.317). In addition, full mediation is present, as the direct link between novelty-centered BMI and export performance, with differentiation advantage as the mediator, was non-significant (β = 0.050, p = 0.448). Similarly, the indirect effect of efficiency-centered BMI on export performance through cost advantage was significant ($M_{Indirect\_cost}$ = 0.097, p = 0.000, 95% CI = 0.038, 0.190). Furthermore, the direct effect of efficiency-centered BMI on export performance, while controlling for cost advantage, was not significant (β = 0.064, p = 0.309), providing evidence of full mediation. We thus conclude that differentiation advantage fully mediates the novelty-centered BMI–export performance link while full mediation is also present for cost advantage in the efficiency-centered BMI–export performance link. Furthermore, novelty-centered BMI exerts a stronger indirect effect on export performance than efficiency-centered BMI. These results provide support for Hypotheses 1 and 2, empirically validating the important role of an exporter's market position in helping transform novelty- and efficiency-centered BMI into superior export performance.

Contrary to our expectation, relational embeddedness does not have a significant effect on the novelty-centered BMI–differentiation advantage association (β = 0.048, p = 0.213). In comparison, the effect of the interaction term between efficiency-centered BMI and relational embeddedness on cost advantage is positive and significant (β = 0.196, p = 0.015). Marginal effects analysis shows that when relational embeddedness is high (1 SD above the mean), a one-unit increase in efficiency-centered BMI provides a statistically significant increase of 42% (β = 0.424, SE = 0.083, p = 0.000) in cost advantage. When relational embeddedness is low (1 SD below the mean), however, a one-unit increase in efficiency-centered BMI has a much lower (16%) but statistically significant increase (β = 0.155, SE = 0.067, p = 0.021) in cost advantage. These results reject Hypothesis 3a but support Hypothesis 3b.

The results pertaining to the role of international experience in the association between the BMI dimensions and exporters' market position provide different takeaways. While the results reveal a negative and significant interaction effect (β = − 0.125, p = 0.030) of the scope of international experience on the novelty-centered BMI–differentiation advantage link, we observe no significant effect of duration on the same path (β = 0.040, p = 0.560). Considering the significant, negative effect further, when international experience scope is low (1 SD below the mean), a one-unit increase in novelty-centered BMI leads to an increase of 63% (β = 0.631, SE = 0.215, p = 0.004)

Table 2 Results of SUR estimation

Independent variable	Differentiation advantage						Cost advantage					
	Model 1: main effects			Model 2: full model			Model 1: main effects			Model 2: full model		
	Coefficient	SE	*p* value	Coefficient	SE	*p* value	Coefficient	SE	*p* value	Coefficient	SE	*p* value
Constant	− 1.604	0.490	0.001	− 1.682	0.484	0.001	− 0.274	0.508	0.590	− 0.217	0.506	0.668
Main effects												
Novelty BMI	0.145	0.065	0.025	0.419	0.084	0.023						
Efficiency BMI							0.194	0.068	0.005	0.214	0.081	0.002
Differentiation advantage												
Cost advantage												
Interaction effects												
Novelty BMI × relational embeddedness				0.048	0.039	0.213						
Novelty BMI × international experience$_{Scope}$				− 0.125	0.058	0.030						
Novelty BMI × international experience$_{Duration}$				0.040	0.069	0.560						
Novelty BMI × competitive intensity				− 0.071	0.042	0.094						
Efficiency BMI × relational embeddedness										0.196	0.046	0.015
Efficiency BMI × international experience$_{Scope}$										0.084	0.061	0.167
Efficiency BMI × international experience$_{Duration}$										0.172	0.074	0.023
Efficiency BMI × competitive intensity										− 0.015	0.044	0.742
Differentiation advantage × competitive intensity												
Cost advantage × competitive intensity												
Control links												
Firm size	− 0.009	0.048	0.853	− 0.028	0.049	0.558	0.067	0.049	0.170	0.076	0.050	0.126
Firm age	0.091	0.105	0.385	0.155	0.105	0.140	0.061	0.105	0.560	0.054	0.106	0.607
R&D expenditure	− 0.037	0.053	0.492	− 0.023	0.053	0.669	0.030	0.054	0.583	0.007	0.055	0.893
Resource availability	0.118	0.042	0.005	0.142	0.043	0.001	0.065	0.043	0.133	0.051	0.045	0.258
Business-to-business	− 0.006	0.125	0.960	− 0.001	0.123	0.999	− 0.083	0.126	0.510	− 0.087	0.126	0.491
Business-to-customer	0.185	0.192	0.336	0.165	0.189	0.383	− 0.140	0.194	0.470	− 0.136	0.196	0.487
Complementarities	0.065	0.039	0.094	0.060	0.038	0.118	0.001	0.041	0.974	0.002	0.041	0.956
Lock-in activities	0.023	0.047	0.629	− 0.002	0.048	0.964	− 0.029	0.048	0.544	− 0.016	0.049	0.739
Novelty level$_{Incremental}$	− 0.017	0.109	0.872	− 0.020	0.108	0.852	0.020	0.110	0.856	0.002	0.110	0.984
Scope type$_{Modular}$	0.036	0.104	0.727	− 0.004	0.104	0.966	− 0.106	0.105	0.316	− 0.110	0.105	0.292
Market turbulence	0.065	0.044	0.140	0.050	0.044	0.255	− 0.006	0.045	0.890	0.001	0.045	0.995
Technological turbulence	0.029	0.042	0.484	0.023	0.041	0.584	0.003	0.042	0.946	− 0.001	0.042	0.995
Competitive intensity	− 0.126	0.051	0.015	− 0.114	0.051	0.027	− 0.017	0.052	0.748	− 0.017	0.053	0.754

Table 2 (*Continued*)

Independent variable	Differentiation advantage						Cost advantage					
	Model 1: main effects			Model 2: full model			Model 1: main effects			Model 2: full model		
	Coefficient	SE	*p* value	Coefficient	SE	*p* value	Coefficient	SE	*p* value	Coefficient	SE	*p* value
Relational embeddedness	0.035	0.046	0.441	0.064	0.046	0.171	0.184	0.045	0.000	0.187	0.046	0.000
International experience$_{Scope}$	0.120	0.069	0.081	0.144	0.070	0.038	0.052	0.070	0.456	0.033	0.071	0.639
International experience$_{Duration}$	0.043	0.083	0.606	0.022	0.083	0.788	− 0.155	0.084	0.065	− 0.152	0.084	0.069
COVID-19$_{Negative\ impact}$	− 0.015	0.116	0.898	0.033	0.115	0.778	0.027	0.118	0.816	0.010	0.117	0.933
COVID-19$_{Positive\ impact}$	0.051	0.143	0.719	0.037	0.141	0.790	− 0.007	0.145	0.964	− 0.033	0.146	0.819
Region dummies	Included			Included			Included			Included		
Industry dummies	Included			Included			Included			Included		
χ^2	80.01		0.000	93.97		0.000	65.42		0.000	70.29		0.001
R^2	0.234			0.264			0.204			0.227		

Independent variable	Export performance					
	Model 1: main effects			Model 2: full model		
	Coefficient	SE	*p* value	Coefficient	SE	*p* value
Constant	4.980	0.412	0.000	4.785	0.405	0.000
Main effects						
Novelty BMI	0.084	0.059	0.155	0.099	0.057	0.086
Efficiency BMI	− 0.011	0.063	0.862	− 0.003	0.062	0.963
Differentiation advantage	0.430	0.051	0.000	0.418	0.050	0.000
Cost advantage	0.199	0.050	0.000	0.190	0.049	0.000
Interaction effects						
Novelty BMI × relational embeddedness						
Novelty BMI × international experience$_{Scope}$						
Novelty BMI × international experience$_{Duration}$						
Novelty BMI × competitive intensity						
Efficiency BMI × relational embeddedness						
Efficiency BMI × international experience$_{Scope}$						
Efficiency BMI × international experience$_{Duration}$						
Efficiency BMI × competitive intensity						
Differentiation advantage × competitive intensity				0.079	0.039	0.041
Cost advantage × competitive intensity				− 0.103	0.033	0.002

Table 2 (*Continued*)

Independent variable	Export performance					
	Model 1: main effects			Model 2: full model		
	Coefficient	SE	*p* value	Coefficient	SE	*p* value
Control links						
Firm size	− 0.033	0.039	0.408	− 0.048	0.039	0.220
Firm age	− 0.115	0.085	0.178	− 0.057	0.085	0.503
R&D expenditure	− 0.018	0.043	0.684	− 0.020	0.042	0.632
Resource availability	0.021	0.035	0.556	0.030	0.034	0.389
Business-to-business	0.018	0.101	0.861	0.031	0.100	0.753
Business-to-customer	− 0.003	0.156	0.986	0.003	0.155	0.984
Complementarities	− 0.017	0.033	0.601	− 0.001	0.032	0.782
Lock-in activities	0.005	0.039	0.907	− 0.008	0.039	0.842
Novelty $level_{Incremental}$	− 0.056	0.088	0.521	− 0.035	0.086	0.685
Scope $type_{Modular}$	− 0.009	0.085	0.912	− 0.031	0.083	0.706
Market turbulence	− 0.059	0.036	0.101	− 0.045	0.035	0.199
Technological turbulence	0.048	0.034	0.154	0.046	0.033	0.168
Competitive intensity	0.043	0.042	0.307	0.052	0.042	0.216
Relational embeddedness	0.025	0.038	0.518	0.031	0.037	0.409
International $experience_{Scope}$	0.112	0.056	0.047	0.126	0.056	0.023
International $experience_{Duration}$	0.104	0.068	0.124	0.075	0.067	0.265
COVID-$19_{Negative\ impact}$	− 0.131	0.096	0.170	− 0.094	0.095	0.324
COVID-$19_{Positive\ impact}$	0.116	0.116	0.318	0.156	0.114	0.171
Region dummies	Included			Included		
Industry dummies	Included			Included		
χ^2	201.99		0.000	219.04		0.000
R^2	0.434			0.460		

n = 263; Two-tailed significance levels.

Table 3 Results from the mediation tests

Indirect path	Direct effect β (p value)	Indirect effect β	95% CI		p value	Conclusion
			Lower bound	Upper bound		
Novelty-centered BMI → Differentiation advantage → Export performance	0.050 (0.450)	0.175	0.084	0.317	0.000	Full mediation
Efficiency-centered BMI → Cost advantage → Export performance	0.064 (0.305)	0.097	0.038	0.190	0.001	Full mediation

in differentiation advantage. This increase drops to 38% ($\beta = 0.375$, SE = 0.117, $p = 0.002$) when firms operate in many different markets (1 SD below the mean). Overall, we find no support for Hypothesis 4a, which argues for a positive effect of international experience (i.e., scope and duration).

Although the results pertaining to the impact of international experience scope ($\beta = 0.084$, $p = 0.167$) on the efficiency-centered BMI–cost advantage relationship are non-significant, greater international experience duration can boost the positive effect of efficiency-centered BMI on cost advantage ($\beta = 0.172$, $p = 0.023$). The marginal effects analysis shows that when the duration of international experience is high (1 SD above the mean), a one-unit increase in efficiency-centered BMI leads to a statistically significant increase of 35% ($\beta = 0.351$, SE = 0.061, $p = 0.000$) in cost advantage. Conversely, when duration of international experience is low (1 SD below the mean), a one-unit increase in efficiency-centered BMI has a lower (21%) but statistically significant increase ($\beta = 0.211$, SE = 0.061, $p = 0.001$) in cost advantage. These results provide partial support for Hypothesis 4b.

Hypothesis 5 predicts that competitive intensity strengthens or weakens the positive association between exporters' novelty- (efficiency-) centered BMI and differentiation (cost) advantages in the export market. The results show that the intensity of competition has a negative, albeit marginally significant, impact on the association between novelty-centered BMI and differentiation advantage ($\beta = -0.071$, $p = 0.094$). The marginal effects analysis shows that when competitive intensity is high (1 SD above the mean), a one-unit increase in novelty-centered BMI has no statistically significant effect ($\beta = 0.083$, SE = 0.089, $p = 0.353$) on differentiation advantage. This changes, however, under mild competitive intensity conditions (1 SD below the mean), as a one-unit increase in novelty-centered BMI provides a statistically significant increase of 22% ($\beta = 0.221$, SE = 0.088, $p = 0.013$) in differentiation advantage. The novelty-centered BMI–cost advantage link remains unaffected by the intensity of competition ($\beta = -0.015$, $p = 0.742$). These results provide evidence to accept Hypothesis 5a but reject Hypothesis 5b.

Differentiation ($\beta = 0.418$, $p = 0.000$) and cost ($\beta = 0.190$, $p = 0.000$) advantages are beneficial for firms' export performance even after we control for novelty- and efficiency-centered BMI. These results also show a stronger effect of differentiation than cost advantage on explaining the variance in firms' export performance. Realizing such advantages, however, seems to be contingent on the competitive conditions in the market. The analysis shows that competitive intensity positively influences the differentiation advantage–export performance relationship ($\beta = 0.079$, $p = 0.041$). Examining this relationship further with marginal effects analysis, we find that under intense competitive conditions (1 SD above the mean), a one-unit increase in differentiation advantage leads to an increase of 53% ($\beta = 0.529$, SE = 0.076, $p = 0.000$) in export performance. This increase drops to 34% ($\beta = 0.338$, SE = 0.072, $p = 0.000$) under mild competitive conditions (1 SD below the mean). Thus, as the intensity of competition increases, having a differentiation advantage can help exporters reach even higher performance levels in their export markets. The significant interaction and marginal effects plots show that the relationship between differentiation advantage and export performance is statistically significant across the whole range of competitive intensity values (see Figures 2 and 3).

Conversely, the intensity of competition has an inhibiting role on the cost advantage–export performance relationship ($\beta = -0.103$, $p = 0.002$). Marginal effects analysis shows that under intense competitive conditions (1 SD above the mean), a one-unit increase in cost advantage has no

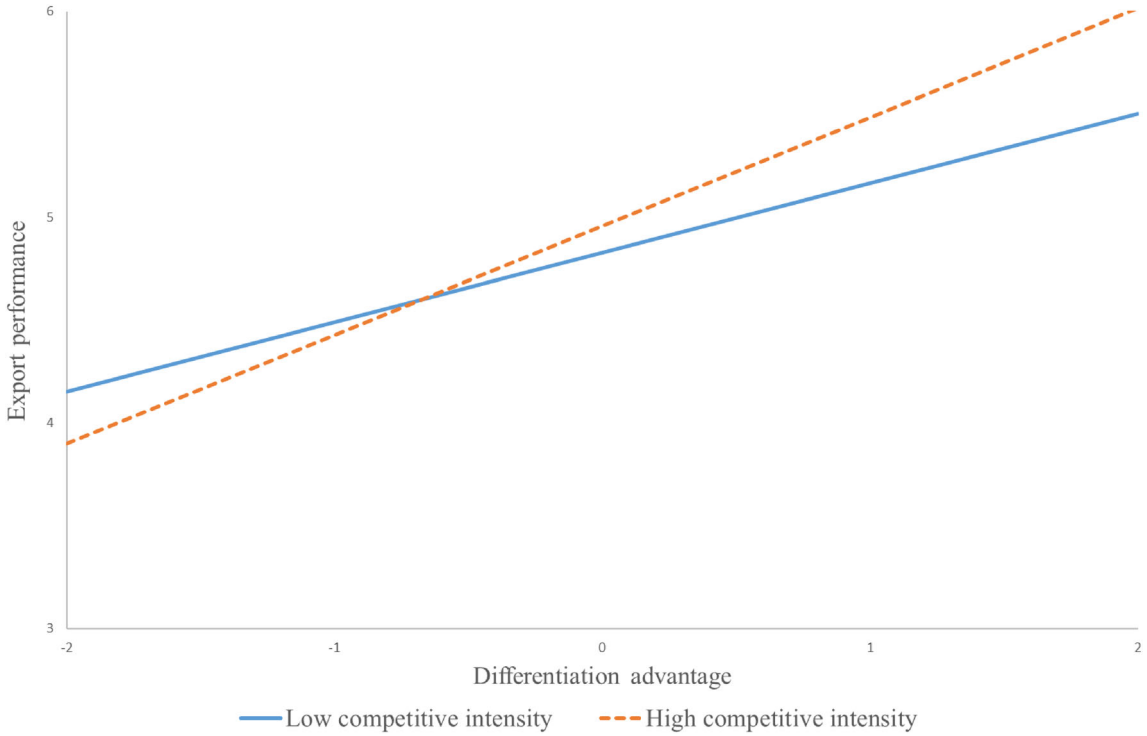

Figure 2 Interaction plots for differentiation advantage and competitive intensity.

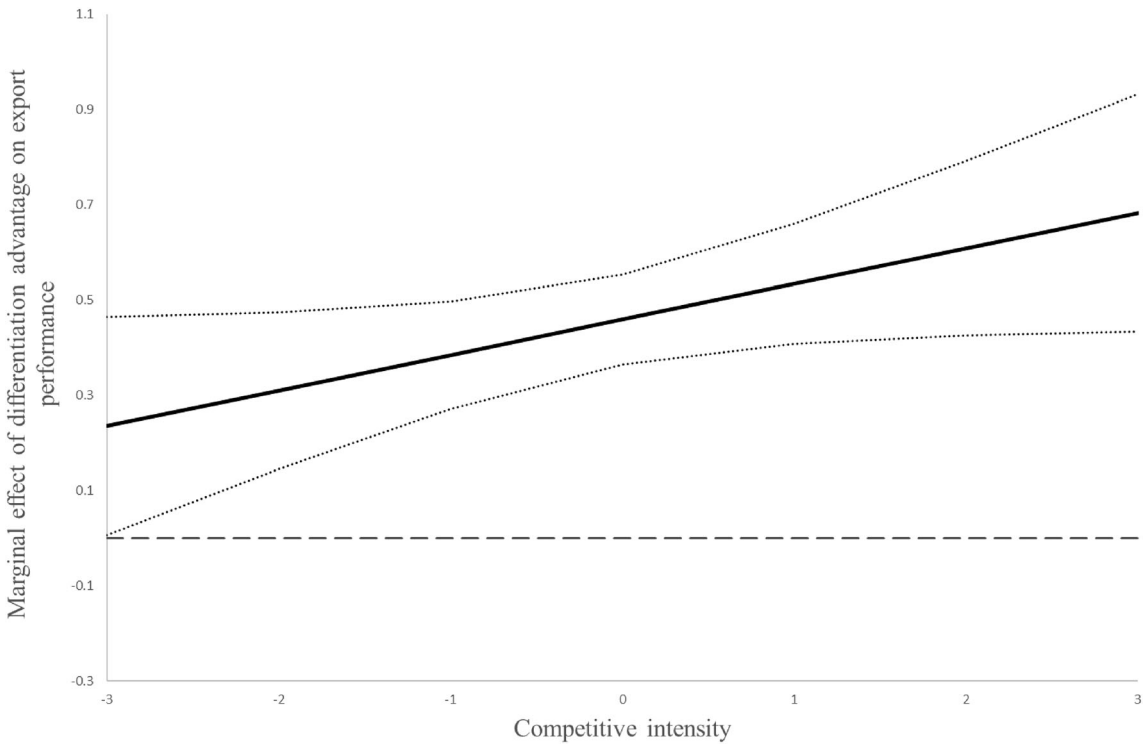

Figure 3 Marginal effects of differentiation advantage on export performance (across the full range of competitive intensity with 95% CI).

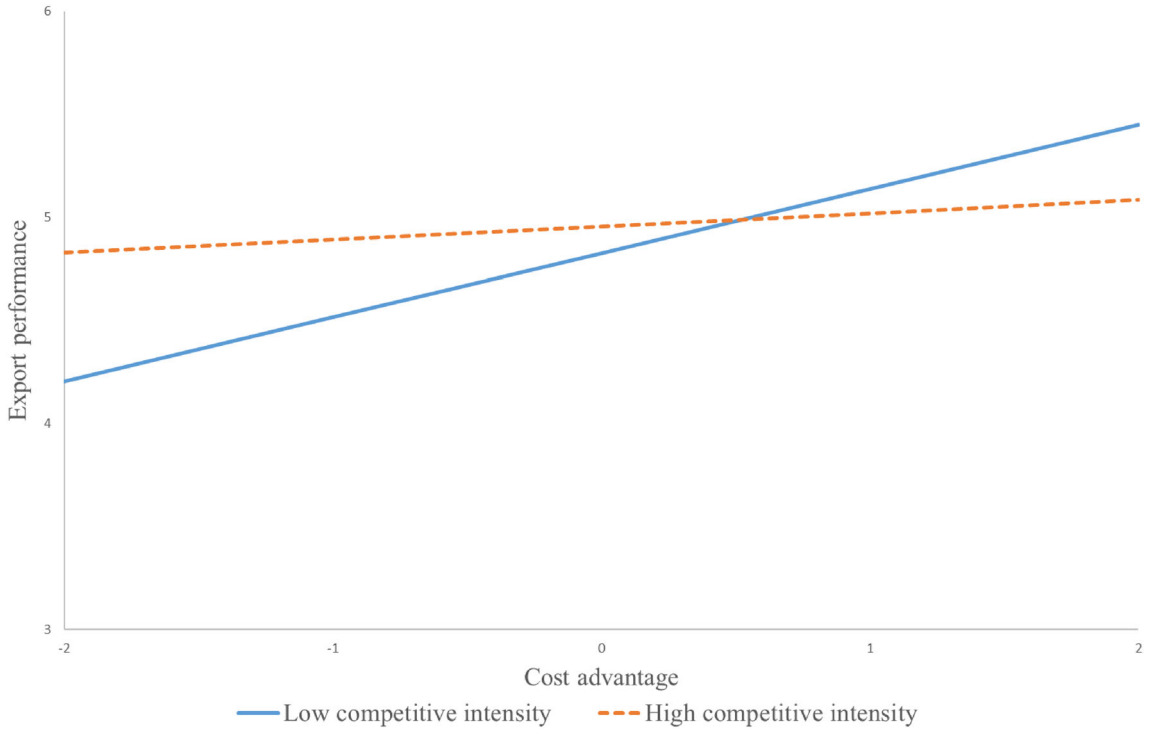

Figure 4 Interaction plots of cost advantage and competitive intensity.

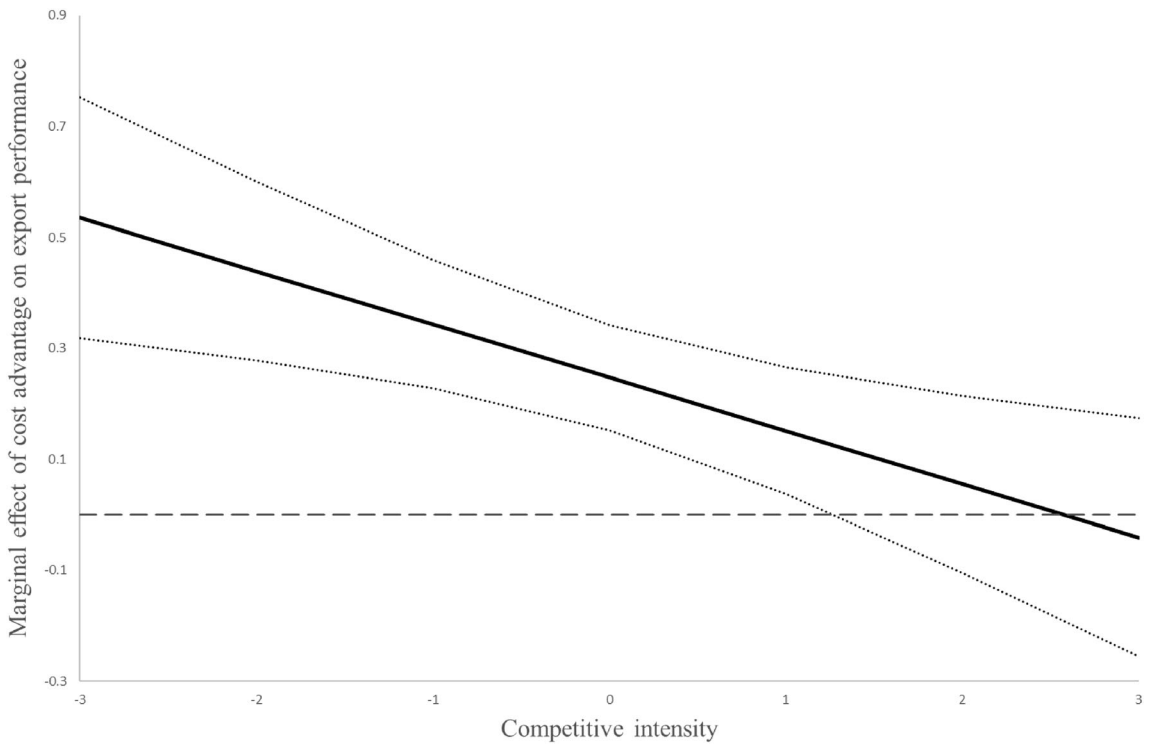

Figure 5 Marginal effects of cost advantage on export performance (across the full range of competitive intensity with 95% CI).

statistically significant effect ($\beta = 0.064$, SE = 0.069, $p = 0.359$) on export performance. Under mild competitive conditions (1 SD below the mean), cost advantage leads to a statistically significant increase of 31% ($\beta = 0.312$, SE = 0.066, $p = 0.000$) in export performance. In plotting the interaction and marginal effects of cost advantage across the full range of competitive intensity, we find that the relationship between cost advantage and export performance is statistically significant between the minimum value of competitive intensity of − 3 and + 1 (see Figures 4 and 5). Thus, firms can better achieve export performance benefits derived from cost advantage under mild competition in the market. These results provide support for Hypotheses 6a and 6b and offer a compelling empirical account for the ambivalent role of competitive intensity, which can be both beneficial for and detrimental to the realization of an exporter's market position on performance. Web Appendix 6 provides the results of robustness tests and additional analyses, and Web Appendix 7 presents a summary of the hypotheses and results.

DISCUSSION

Theoretical Contributions

Our study contributes to theory in several ways. First, it applies and empirically validates the relevance of the sources–positions–performance framework in BMI literature. Our pathway model of BMI–positional advantage–export performance offers a coherent framework that reveals the important but neglected core market-related mechanisms – why mechanisms – through which BMI drives export performance. Our findings differ from those of previous studies by showing the full mediation effects of positional advantage on the BMI–export performance link, thereby clarifying why some studies did not find a direct association between novelty-centered (e.g., Leppänen et al., 2023) or efficiency-centered (e.g., Liu, et al., 2021) BMI and performance. As such, our findings offer additional support for the distinct value of each BMI type as a non-location-bound firm-specific advantage (Bohnsack et al., 2021; Hennart et al., 2021) and, in doing so, challenge common assumptions that disregard the importance of efficiency-centered BMI (e.g., Pati et al., 2021). Our full mediation findings are theoretically interesting because they underscore the importance of treating novelty- and efficiency-centered BMI as complementary (Leppänen et al., 2023) and not substitutes given their role in driving distinct positional advantages.

Second, our study outlines boundary conditions of novelty- and efficiency-centered BMI – a key requirement for further development of any theory. Prior studies on IB lack theory or empirical investigations on contingent factors under which the two types of BMI enhance positional advantages of exporters. We tackle this limitation by adopting an integrative approach that embraces the RBV and the organizational learning perspective to identify critical boundary conditions that may contribute to current inconsistencies in the literature on performance outcomes of novelty- and efficiency-centered BMI. Our theoretical contribution lies in disclosing the complexities of the interaction between BMI on the one hand and relational embeddedness, international experience, and competitive intensity on the other hand in driving exporters' value creation. Specifically, contrary to the majority of studies (e.g., Johanson & Vahlne, 2009; Kim, 2014) focusing on the direct effects of relational embeddedness, our study theorizes and empirically demonstrates that relational embeddedness can also indirectly (i.e., by boosting the effectiveness of efficiency-centered BMI) contribute to firms' competitive advantages in export markets. However, our finding of a non-significant conditioning effect of relational embeddedness on the novelty-centered BMI–differentiation advantage link indicates that when an exporter develops a novel business model with clear competitive advantages, it can easily achieve differentiation advantages even in the absence of embedded relations with local business partners. Our study thus reinforces prior studies that position a novelty-centered business model as an enduring source of "innovation and wealth creation" (Zott & Amit, 2007: 195).

Our heterogeneous moderating effects of scope and duration contribute to organizational learning theory by highlighting the role of international experience as a double-edge sword and demonstrating that the effects of international experience are not as straightforward as previously assumed. Rather, the benefits of international experience critically depend on the nature of the experience (i.e., scope and duration), the type of BMI, and the congruence between them. A theoretical implication of these findings is that firm capabilities (e.g., international experience) and resources (e.g., novelty- and efficiency-centered BMI) should be treated as intertwined, as not doing so can lead to a misaligned configuration of capabilities and

resources that ultimately attenuates the performance outcome of the latter. Our findings thus provide a more nuanced understanding of which aspects of scope or duration of international experience matter more for different BMI types.

Regarding conditioning effects of competitive intensity, we find that while the advantage of efficiency-centered BMI seems to hold across different competitive intensity conditions, novelty-centered BMI can be particularly useful in mildly competitive environments. Our findings are consistent with previous studies theorizing that firms' innovative approaches (e.g., BMI) are more likely to stand out in a less competitive environment because such firms can better capitalize on the transparent predictability of their own behavior (Auh & Menguc, 2005; Rubera & Kirca, 2017). Collectively, our study extends the sources–positions–performance framework by revealing that the "size" and "durability" of the advantages generated from the two BMI types depend not only on the intensity of competition but also on the nature of resources and the confluence between them (Day & Wensley, 1988).

Third, our findings extend the sources–positions–performance framework by showing that performance outcomes of positional advantages should not be over-generalized, but to avoid doing so, careful consideration of the competitive intensity in an export market is required. Many studies using the sources–positions–performance framework (e.g., Spyropoulou et al., 2018; Zhang et al., 2017) assume the spontaneous transformation of positional advantages into desired performance outcomes. Our findings, however, indicate that this broadly accepted belief is incorrect. Our study highlights the implicit importance of differentiation advantage and shows that cost advantage is not unconditionally effective in achieving superior performance in export markets and that its effectiveness can depend on the nature of competition.

Practical Implications

Novelty- and efficiency-centered BMI are both important for exporter performance but for different reasons

Both types of BMI can boost firms' export performance but through distinct paths. We therefore advise managers not to fall into a "novelty trap" (Leppänen et al., 2023) but to be more aware of the importance of efficiency-centered BMI as an additional approach for increasing export performance. Depending on the positional advantage they wish to achieve in an export market, managers may focus on novelty- or efficiency-centered BMI to achieve financial success in the export market. Specifically, for exporters pursuing price leadership in foreign markets, it may make sense to focus on streamlining and simplifying their existing business model or exploiting other established business models in a given export market. Exporters aiming to achieve differentiation advantages would benefit from developing business models that are new not only to their firm but also to the industry, constantly leveraging novel connections, combinations, and processes.

Relational embeddedness is important to local distributors for the success of efficiency-centered BMI

Our findings indicate that exporters with a high level of relational embeddedness in an export market are likely to reap benefits from efficiency-centered BMI. Thus, we advise managers to focus more on developing and maintaining close relationships with exchange partners in an export market to make up for the liability of foreignness and to optimize the benefits of their efficiency-centered BMI.

International experience matters but could be considered in line with BMI types

Our study encourages practitioners to approach international experience as a double-edged sword because it can boost or limit the benefits of BMI depending on its type. Managers pursuing efficiency-centered BMI may leverage their deep knowledge of an export market, as doing so will heighten the effectiveness of such business models in the market. However, our study shows that experience – gained from entering many foreign markets – when deploying novelty-centered BMIs may have unintended negative effects on the success of such business models. Consequently, managers are advised to leverage their global experience cautiously when pursuing novelty-centered BMI. Such experience is broad and lacks specificity and thus may not be sufficient to guide decisions on implementing a novelty-centered BMI in an export market.

Positional advantages, particularly those that are price related, are not a panacea

Another takeaway from our study is that while positional advantages provide necessary baselines for achieving superior performance, their

effectiveness depends on the intensity of competition. In highly competitive markets, managers may consider investing more in developing their differentiation advantages, which can guarantee even higher export performance because, according to our findings, price advantages can become less effective in such markets. By contrast, cost advantages pay off in mildly competitive environments, as enhanced competition can eat away margins and cost savings.

Limitations and Future Research Directions

Our study offers several avenues for future research that might help advance knowledge in the field further. First, while we focused on the outcomes of BMI, we did not investigate the antecedent factors for the deployment of particular BMI dimensions. Researchers could investigate why exporters engage in BMI and under what conditions they are more likely to develop novelty- or efficiency-centered BMI. A focus on factors that encourage and/or inhibit BMI would advance the literature and understanding on the topic. Second, the success of BMI may also depend on other relevant organizational factors, such as leadership and managerial cognition. Future studies could focus on how such factors condition the BMI–positional advantage relationship. Third, research (e.g., Foss & Saebi, 2017) suggests that benefits of BMI accrue over time. Future empirical efforts might consider using a time lag to more accurately capture the outcomes of BMI. Finally, the lack of empirical support for the conditioning effect of relational embeddedness on the novelty-centered BMI–differentiation advantage link suggests the need to: (1) focus on other relational factors that are similar but conceptually different (e.g., relational embeddedness with governmental officials), (2) test other important interactions not considered herein (e.g., two-way interaction between relational embeddedness and other capabilities, such as architectural or specialized marketing capabilities), or (3) theorize on the possibility that curvilinear effects of relational embeddedness occur.

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NOTES

[1]Non-location-bound firm-specific advantages, such as novel technologies or products, can be transferred and exploited across various markets, thereby allowing firms to achieve economies of scope and scale. However, location-bound firm-specific advantages, such as local business relationships or local knowledge, benefit a firm only in a particular market (Bohnsack et al., 2021).

[2]Despite some similarities, distinct differences exist between BMI and innovation types particularly in terms of their unit of analysis (see Web Appendix 3).

REFERENCES

Amit, R., & Zott, C. 2015. Crafting business architecture: The antecedents of business model design. *Strategic Entrepreneurship Journal,* 9(4): 331–350.

Argote, L., & Miron-Spektor, E. 2011. Organizational learning: From experience to knowledge. *Organization Science,* 22(5): 1123–1137.

Armstrong, J. S., & Overton, T. S. 1977. Estimating nonresponse bias in mail surveys. *Journal of Marketing Research,* 14(3): 396–402.

Auh, S., & Menguc, B. 2005. Balancing exploration and exploitation: The moderating role of competitive intensity. *Journal of Business Research,* 58(12): 1652–1661.

Bohnsack, R., Ciulli, F., & Kolk, A. 2021. The role of business models in firm internationalization: An exploration of European electricity firms in the context of the energy transition. *Journal of International Business Studies,* 52(5): 824–852.

Day, G. S. 1994. The capabilities of market-driven organizations. *Journal of Marketing,* 58(4): 37–52.

Day, G. S., & Wensley, R. 1988. Assessing advantage: A framework for diagnosing competitive superiority. *Journal of Marketing,* 52(2): 1–20.

Demil, B., Lecocq, X., Ricart, J. E., & Zott, C. 2015. Introduction to the SEJ special issue on business models: Business models within the domain of strategic entrepreneurship. *Strategic Entrepreneurship Journal,* 9(1): 1–11.

Dhanaraj, C., Lyles, M. A., Steensma, H. K., & Tihanyi, L. 2004. Managing tacit and explicit knowledge transfer in IJVs: The role of relational embeddedness and the impact on

performance. *Journal of International Business Studies,* 35(5): 428–442.
Economist Intelligence Unit. 2005. Business 2010: Embracing the challenge of change. *The Economist.* Retrieved May, 7, 2023, from http://graphics.eiu.com/files/ad_pdfs/business%202010_global_final.pdf
Foss, N. J., & Saebi, T. 2017. Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management,* 43(1): 200–227.
Frei, B., & Musso, C. 2011, May 01. Innovation in chemicals: An interview with Dow Corning's CEO and CTO. *McKinsey & Company*. Retrieved May 7, 2023, from https://www.mckinsey.com/industries/chemicals/our-insights/innovation-in-chemicals-an-interview-with-dow-cornings-ceo-and-cto
Guo, H., Wang, C., Su, Z., & Wang, D. 2020. Technology push or market pull? Strategic orientation in business model design and digital start-up performance. *Journal of Product Innovation Management,* 37(4): 352–372.
Han, S.G. 2019. QR code changes Subway station to supermarket. Retrieved May 7, 2023, from https://medium.com/civic-analytics-2019/qr-code-changes-subway-station-to-supermarket-218bbcedacfa
Hansen, J. M., McDonald, R. E., & Mitchell, R. K. 2013. Competence resource specialization, causal ambiguity, and the creation and decay of competitiveness: The role of marketing strategy in new product performance and shareholder value. *Journal of the Academy of Marketing Science,* 41(3): 300–319.
Hennart, J.-F., Majocchi, A., & Hagen, B. 2021. What's so special about born globals, their entrepreneurs or their business model? *Journal of International Business Studies,* 52(9): 1665–1694.
Homburg, C., Klarmann, M., Reimann, M., & Schilke, O. 2012. What drives key informant accuracy? *Journal of Marketing Research,* 49(4): 594–608.
Jaworski, B. J., & Kohli, A. K. 1993. Market orientation: Antecedents and consequences. *Journal of Marketing,* 57(3): 53–70.
Johanson, J., & Vahlne, J.-E. 2009. The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies,* 40(9): 1411–1431.
Kaleka, A., & Morgan, N. A. 2017. Which competitive advantage(s)? Competitive advantage–market performance relationships in international markets. *Journal of International Marketing,* 25(4): 25–49.
Kavadias, S., Ladas, K., & Loch, C. 2016. The transformative business model. *Harvard Business Review,* 94(10): 90–98.
Kim, D. Y. 2014. Understanding supplier structural embeddedness: A social network perspective. *Journal of Operations Management,* 32(5): 219–231.
Leonidou, L. C., Palihawadana, D., Aykol, B., & Christodoulides, P. 2022. Effective small and medium-sized enterprise import strategy: Its drivers, moderators, and outcomes. *Journal of International Marketing,* 30(1): 18–39.
Leppänen, P., George, G., & Alexy, O. 2023. When do novel business models lead to high performance? A configurational approach to value drivers, competitive strategy, and firm environment. *Academy of Management Journal,* 66(1): 164–194.
Liu, A., Liu, H., & Gu, J. 2021. Linking business model design and operational performance: The mediating role of supply chain integration. *Industrial Marketing Management,* 96: 60–70.
Malhotra, N. K., Kim, S. S., & Patil, A. 2006. Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science,* 52(12): 1865–1883.
Morgan, N. A., Kaleka, A., & Katsikeas, C. S. 2004. Antecedents of export venture performance: A theoretical model and empirical assessment. *Journal of Marketing,* 68(1): 90–108.
Najafi-Tavani, Z., Zaefarian, G., Henneberg, S. C., Naudé, P., Giroud, A., & Andersson, U. 2015. Subsidiary knowledge development in knowledge-intensive business services: A configuration approach. *Journal of International Marketing,* 23(4): 22–43.
Pati, R. K., Ghobadian, A., Nandakumar, M. K., Hitt, M. A., & O'Regan, N. 2021. Entrepreneurial behavior and firm performance: The mediating role of business model novelty. *R&D Management,* 51(5): 551–567.
Rubera, G., & Kirca, A. H. 2017. You gotta serve somebody: The effects of firm innovation on customer satisfaction and firm value. *Journal of the Academy of Marketing Science,* 45: 741–761.
Spyropoulou, S., Katsikeas, C. S., Skarmeas, D., & Morgan, N. A. 2018. Strategic goal accomplishment in export ventures: The role of capabilities, knowledge, and environment. *Journal of the Academy of Marketing Science,* 46: 109–129.
Wei, Z., Yang, D., Sun, B., & Gu, M. 2014. The fit between technological innovation and business model design for firm growth: Evidence from China. *R&D Management,* 44(3): 288–305.
Williamson, E. O. 1975. *Markets and hierarchies: Analysis and anti-trust implications: A study in the economics of internal organization*. Free Press.
Winter, S. G., & Szulanski, G. 2001. Replication as strategy. *Organization Science,* 12(6): 730–743.
Zahra, S. A. 1993. Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of Business Venturing,* 8(4): 319–340.
Zapfl, D. 2018. 3 famous business model innovations and what you can learn from them. Retrieved May 7, 2023, from https://www.lead-innovation.com/en/insights/english-blog/famous-business-model-innovations
Zellner, A. 1962. An efficient method of estimating seemingly unrelated regressions and tests for aggregation bias. *Journal of the American Statistical Association,* 57(298): 348–368.
Zhang, F., Wang, Y., Li, D., & Cui, V. 2017. Configurations of innovations across domains: An organizational ambidexterity view. *Journal of Product Innovation Management,* 34(6): 821–841.
Zhou, K. Z., & Li, C. B. 2012. How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. *Strategic Management Journal,* 33(9): 1090–1102.
Zott, C., & Amit, R. 2007. Business model design and the performance of entrepreneurial firms. *Organization Science,* 18(2): 181–199.

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